computer model and each time the 3D computer model is accessed for viewing, the first image of the 3D computer model is generated using a viewing camera relative to the predetermined position or direction in the calibration

5   pattern.

By performing processing so as to generate data to control the display of the first image of the 3D computer model in dependence upon a position or direction on the

10   calibration object, the user can select which part of the object is to appear in the first image by aligning the desired object part with the position or direction on the calibration object.

The present invention also provides a processing

15   apparatus or method for use in the system above. For example, the present invention provides a method or apparatus for generating a 3D computer model of a subject object from images of the subject object, in which stored data defining a calibration pattern and a position or

20   direction relative to the pattern is used to process images showing both the subject object and the calibration pattern to define a 3D computer model and a viewing camera therefor arranged relative to each other

25   in dependence upon the position or direction in the

pattern.

The viewing camera may be a default viewing camera having a predetermined position and viewing direction so that the position and orientation of the 3D computer model are calculated relative to the camera, or alternatively, the position and orientation of the viewing camera may be calculated relative to the 3D computer model.

The present invention also provides an apparatus or method in which data is received defining a 3D computer model and a position or direction relative to the 3D computer model, and either a viewing camera is defined for the 3D computer model in dependence upon the defined position or direction, or the 3D computer model is positioned relative to a predetermined viewing camera in dependence upon the defined position or direction.

In another aspect, according to the present invention, a user is provided with a calibration pattern and information specifying a position or direction relative to the pattern to enable the user to position a subject object relative to the pattern. Images of the subject object and calibration pattern are then processed to calculate the direction of the camera relative to the

calibration pattern when each image was recorded, and to select an image for display in dependence upon the calculated camera viewing directions relative to the specified position or direction.

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The present invention further provides computer program products for configuring programmable processing apparatus for use in the above.

10 Embodiments of the invention will now be described, by way of example only, with reference to the accompanying drawings, in which:

Figure 1 schematically shows the components of a first
15 embodiment of the invention, together with the notional functional processing units into which the computer components may be thought of as being configured when programmed by programming instructions;

20 Figure 2 illustrates a pattern of features stored in calibration pattern store 37 in apparatus 6 in Figure 1 for printing or displaying on a photographic mat;

Figure 3 illustrates how the features in the pattern
25 shown in Figure 2 are defined in a coordinate system in